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PUBLIC, REDATED VERSION

August 25, 2021

Lisa M. Fowlkes, Chief
Public Safety and Homeland Security Bureau
Federal Communications Commission
45 L Street NE
Washington, DC 20554

Re: Wireless Emergency Alert Performance
August 11, 2021 Test
PS Docket Nos. 15-91 & 15-94

Dear Ms. Fowlkes:

T-Mobile USA, Inc.¹ (“T-Mobile”) hereby responds to your July 20, 2021 letter² seeking performance data relating to the August 11, 2021 test of the Wireless Emergency Alert (“WEA”) system. T-Mobile voluntarily participates in this valuable program so that its customers can receive important and potentially life-saving information during emergencies and welcomes the opportunity to provide information regarding the recent WEA test. However, because the integrity of the WEA system is critical to its success,³ T-Mobile requests confidential treatment of certain information – identified with the symbols [] – that could be used by bad actors to undermine the system.⁴

T-Mobile received the nationwide test message on August 11th and successfully transmitted the message to subscribers throughout its geographic footprint. Unlike the prior WEA test, the August 2021 test message was designed so that it would be received only by subscribers that previously opted-in to receive test messages. T-Mobile believes that such T-Mobile subscribers successfully received the test message.

¹ T-Mobile USA, Inc. is a wholly owned subsidiary of T-Mobile US, Inc., a publicly traded company.

² Letter from Lisa M. Fowlkes, Chief, Public Safety and Homeland Security Bureau, Federal Communications Commission to Shellie Blakeney, Director, Federal Regulatory Affairs, T-Mobile USA, Inc. (July 20, 2021).

³ See CSRIC V, Working Group 2, *WEA Security*, Final Report, at 7, 24, 30 (2016); CSRIC IV, Working Group Four, Cybersecurity Risk Management and Best Practices Working Group, Final Report (2015), https://transition.fcc.gov/pshs/advisory/csric4/CSRIC_IV_WG4_Final_Report_031815.pdf; see also Software Engineering Institute, WEA Project Team, *Wireless Emergency Alerts (WEA) Cybersecurity Risk Management Strategy for Alert Originators* (2014), available at http://resources.sei.cmu.edu/asset_files/SpecialReport/2014_003_001_87729.pdf.

⁴ A formal request for confidential treatment of this information is being submitted simultaneously with the unredacted version of this filing.

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The *Sent Date/Time* of FEMA's test alert was August 11, 2021 at 14:20:01.000 EDT, with an *Effective Date/Time*⁵ of August 11, 2021 at [REDACTED]. T-Mobile's gateway received the alert from FEMA's Integrated Public Alert and Warning System ("IPAWS") at [REDACTED] and T-Mobile's WEA platform transmitted the message to T-Mobile subscribers at [REDACTED]. In other words, T-Mobile's WEA platform was able to process and transmit the alert to T-Mobile's Radio Network Controllers/Mobility Management Entities/Access and Mobility Function in [REDACTED].⁶ The Cell Radio Network Controllers/Mobility Management Entities then processed and sent the alert to its NodeBs/eNodeBs/gNBs within [REDACTED],⁷ with these nodes processing the test message and sending it to subscribers in less than [REDACTED]. T-Mobile's NodeBs/eNodeBs/gNBs transmit messages every [REDACTED].

T-Mobile did not observe any measurable degradation in performance between its 3G, 4G and 5G networks.⁸ T-Mobile observed that alerts were received by all T-Mobile test devices at approximately the same time. T-Mobile rebroadcast the test message [REDACTED] times over its UMTS/4G/5G networks at [REDACTED] intervals, and [REDACTED] times over its GSM network at [REDACTED] intervals.

Finally, T-Mobile notes that it had testers monitoring more than 50 devices during the test and, even though real WEA alerts were initiated during the test in some areas of the Country, no complications with alert processing or transmission were observed.

If you have any questions, please do not hesitate to contact me.

Respectfully Submitted,

/s/ Shellie Blakeney
Shellie Blakeney
Director, Federal Regulatory Affairs

Cc: Erika Olsen, Acting Chief
Cybersecurity and Communications Reliability Division

⁵ The "Effective Date/Time" reference in the letter is ambiguous as this is not a defined field in the WEA message, so T-Mobile is providing the time the WEA alert was first received by its broadcast message center.

⁶ T-Mobile's WEA platform is a single node with two logical elements that perform the functions of Cell Broadcast Entity/CMSP Gateway and Cell Broadcast Center. With this configuration, there is not a measurable difference in the time T-Mobile's network took to transmit the WEA message between these two elements.

⁷ This time represents the 'round trip' measurement of time from T-Mobile's WEA platform to the radio nodes and their confirmation of transmitting the alert for broadcast.

⁸ As a general matter, we note that 3G alerts rely on a periodic slot in the paging channel used to distribute alerts, which can cause delivery times to vary among users attached to the 3G network.